REMARKS

Claims 3 and 4 are pending and Claims 5-12 are newly presented claims.

Claim 3 is rejected under 35 USC 103 as being unpatentable over Horrigan in view of Barrett. While Applicant appreciates the teachings of these prior art references, the two references combined do not render the Claimed invention unpatentable. To establish a prima facie case of obviousness, the prior art references must teach or suggest all the claim limitations. *See* MPEP 2142. Moreover, a review of Horrigan and Barrett shows that the two references fail to teach or suggest each claim limitation put forth by the present Claim.

Claim 3 requires the use of an Iterative Proportional Fitting Procedure (IPFP) that resolves non-convergence conflicts between two Weighting EFDs via Partial Re-weighting. The problem with prior-art IPFP is that it can yield non-converged solutions. (IPFP does not, per se, regard resolving "non-convergence conflicts.") This problem is addressed in the present invention. Horrigan fails to mention IPFP, or anything similar to IPFP. While Barrett's invention employs the standard prior-art IPFP (paragraph 75 and elsewhere) and recognizes that standard prior-art IPFP can yield non-converged solutions, "using IPF is not entirely correct" (paragraph 98), Barrett's solution to the problem (paragraphs 99-100) is to restructure IPFP input data. This raises the question as to whether such restructuring is appropriate. In contrast, the present invention's solution is to expand the IPFP to directly address possible non-convergence conflicts via Partial Re-weighting – a claimed element not found in the combination of Horrigan and Barrett. Therefore, Claim 3 is patentable and distinct over the cited prior art.

Furthermore, Horrigan lacks additional specific claimed elements currently present:

1. The claim's two Weighting EFDs (Exogenously Forecasted Distributions) could regard return and order execution rate as in as in Horrigan. However, the claim is directed toward generating scenarios in an improved fashion. Horrigan's invention simply uses scenarios. Horrigan seemingly offers no advancement over the prior-art scenario generation methods, though Horrigan's disclosure touches upon generating scenarios. Horrigan potentially could use scenarios generated by the present invention.

2. Horrigan's NxN diagonal matrix and the prevent invention's Foundational Table are quite different: Horrigan's NxN diagonal matrix consists of estimated expected asset returns

(Column 11, Lines 27-31), while the Foundational Table of the present invention consists of observational data, such as survey data, experimental-scientific data, and the like.

3. Classifying data into bins is separate and distinct from resolving non-convergence conflicts. As defined in the disclosure of the present invention, non-convergence conflicts concerns the failure of the prior-art IPFP to yield converged solutions. Since Horrigan fails to mention IPFP, or anything similar to IPFP, of consequence, Horrigan invention is not germane to the consideration of the present invention's improved IPFP.

Claim 4 is rejected under 35 USC 103 as being unpatentable over Horrigan in view of Gould. While Applicant appreciates the teachings of these prior art references, the two references combined do not render the Claimed invention unpatentable. Moreover, a review of Horrigan and Gould shows that the two references fail to teach or suggest each claim limitation put forth by the present Claim.

Claim 4 regards sharing risk between two parties. Horrigan's invention does not regard sharing risk between two parties; rather, it concerns developing a strategy to place orders to trade financial-instruments. The only risk that Horrigan's invention addresses is the risk to a single party that an order will not be executed and/or mispriced. For Horrigan, the existence of a second party is only assumed probabilistically: an order that has been placed per Horrigan's invention might not be filled. Horrigan does not consider the interests of any second party. In contrast, the present invention regards sharing risk between two parties, whom the present invention contractually binds together.

There are other distinctions between Horrigan and the present invention. Horrigan does not directly use a logarithmic function to determine payoffs. Horrigan's Equation 1 (Column 7) does not entail any logarithmic transformation, but rather entails only simple algebraic transformations to yield a percentage return based upon price changes. Horrigan uses a seemingly-standard log-likelihood statistical procedure (Column 21, Line 45) to determine single-party estimated bin probabilities, which are in turned used to develop order placement strategies. This is in contrast to the present claim in which two parties provide separate and usually different estimated bin probabilities (as *ac-Distribution* data objects) that are aggregated and converted into payoffs using a logarithmic function. The *PayOffMatrix* data structure of the present invention is different from Horrigan's NxN diagonal matrix: Horrigan's NxN diagonal matrix consists of estimated expected asset returns (Column 11, Lines 27-31); the

present invention's *PayOffMatrix* contains payments amongst multiple parties in a zero-sum game. (In an implementation of the present invention, a managing entity could charge each and every party that submits an *ac-Distribution* a fee, thus making the situation a negative-sum game for the parties that submit *ac-Distributions*.)

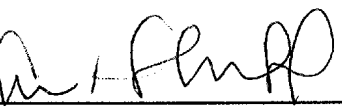
While "Gould et al disclose managing the allocation risk between a mortgage originator and a funding institute (column 2, lines 21-24), including an agreement between the two parties which defines rates, fees, and total dollar amount (i.e. contract quantity, column 4, lines 20-25)", Gould individually, or in conjunction with Horrigan, does not teach the present invention, in particular Claim 4. Though both Gould and Horrigan could be considered to utilize variate (variable) categorization into bins, neither utilizes *ac-Distributions* that originate from two individual parties and that have bin-probabilities assigned by the individual parties. Furthermore, neither Gould and/or Horrigan utilize *ac-Distributions* for the purposes of sharing risk between two individual parties. Though, Gould regards allocating risk between a mortgage originator and a funding institute, such an allocation is done according to the terms of a signed agreement (Gould, Fig. 2, item 200). In contrast, the present invention determines risk-sharing terms. Gould is not, per se, concerned with optimizing risk aversion. Rather, such optimization is presumed to have occurred when the signed agreement is negotiated. In contrast, the present invention is specifically concerned with optimizing risk aversion between two parties. Under the present invention, the *ac-Distributions* are used to contractually bind two parties in a manner that optimizes individual-party risk aversion.

Reconsideration is requested for Claim 3 and 4.

Claims 5 through 12 are new claims presented herein. These claims are not anticipated nor rendered obvious over the cited prior art.

Applicant respectfully requests reconsideration. If the Office has any questions, please free feel to contact the undersigned at 312-521-2775.

Respectfully submitted,

Date: 1-11-2007 By: 

Adam K Sacharoff
Registration No. 43,075
(312) 521-2775